GEOGRAPHICAL RESEARCH.

By FREDERIC J. HASKIN.

The increased interest in geographical research in America makes the annual convention of the Association of American Geographers, to be held in Pittsburg December 29 to 31, an event of great importance. This association is composed entirely of scientific experts, and the result of their deliberations will materially affect the geographical progress of the world. An important matter to be considered is the election of delegates to attend the tenth international geographical congress, which will meet in Rome next October. Among the delegates likely to be sent are Prof. Henry C. Cowles of the Chicago University and Prof. R. S. Tarr of Michigan. Prof. Cowles is the president of the American Association of Geographers and Prof. Tarr was the leader of the first expedition sent out by the National Geographic Society for the study of glaciers in Alaska.

There is no country in the world where greater interest has been manifested in geographical research and the exploration of unknown territory durinz the past year than in the United States. American money generously placed at the disposal of scientists has provided the means for expeditions to all parts of the earth. The enormous sums of money spent during the past year for this purpose cannot even be approximated, coming, as they do, through so many channels. Most of the important research by Americans, however, is being done either under the auspices or by those affiliated with the National Geographic Society. This great body of Americans with scientific interests now numbers over 67,000 members, and the increasing interest in its work can be proved in no more practical manner than by the addition of 1,000 new members per week, which has been the average rate during the past month.

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This year has been the most fruitful ever known to American explorers. It

Year Fruitful One for the Explorer.

began with the official recognition of Peary's achievement in the conquest of the north pole. It derived additional laurels from the prowess of Col. Roosevelt in Africa, and from the remarkable work accomplished in terrestrial magnetic investigation, especially that made by the non-magnetic vessel Carnegie under the direction of the Carnegie Institution of Washington.

At the November meeting of the National Geographic Society resolutions were passed expressing the appreciation of the society of the results of Col. Roosevelt's trip and recognizing it as an expedition of great scientific value. The collection of natural history specimens secured by him and placed at the disposal of the National Museum has made that institution superior in its equipment in this respect to any other in the world. Many of the fauna secured by Col. Roosevelt are now almost extinct, so that the value of the specimens will increase in the future. Since much of this expedition was made into comparatively new territory, its geographic importance is hardly secondary in scientific value to that of the remarkable collection of natural history specimens secured.

The Carnegie, built for terrestrial magnetic research, is the only boat of any size ever built of absolutely non-magnetic material. The Carnegie Institution has undertaken a complete and systematic magnetic survey of the world. During the past year the entire survey of the magnetic conditions of the Pacific ocean has been completed. The Carnegie and its staff of explorers are now engaged in a similar survey of the Atlantic ocean. While a better understanding of the powers of the terrestrial magno force upon the ocean is of prime importance because of its direct bearing upon the courses of navigation, the research survey is being carried over the land as well. A party from the Carnegie crossed Africa within the past few months and established a systematic chain of terrestrial magno stations through hitherto unknown territories. The same course has been pursued in parts of South America, Asia Minor and other localities. The geographic information thus secured will be of interest when placed at public disposal through the next printed reports.

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The National Geographic Society's last expedition to Alaska for the study of glacial conditions, made

Glaciers of Alaska Overshadow the Alps.

under the leadership of Prof. Lawrence Martin, has returned after several months' research in this difficult field. The Alaska glaciers make those of the Alps seem insignificant in comparison. Their immense height, the vast territory they cover and their capability of discharging huge icebergs into the Pacific ocean render them an important factor to be reckoned with in connection with the development of Alaska. These huge ice fields, which at places rise to the height of great mountains and one of which covers an area equal to that of Rhode Island, are constantly changing. The causes for their movements, their probability of continuance and the results to be expected from them are important matters in connection with the geographical conditions of the country.

That these glaciers are affected by earthquakes and volcanic disturbances has been indisputably settled, but to what extent has not been yet satisfactorily determined. There are some glaciers which have an advance movement amounting to a mile within a few months, while others move so slightly as to seem almost stationary for years. When it is considered that railroads are being built which will cross directly over some of these glaciers the practical value of glaciation study becomes apparent.

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A well equipped ship in command of Capt. Scott, under the auspices of the Royal Geo-

Nations in Competition for the South Pole.

graphical Society of Great Britain, started from New Zealand for the Antarctic regions last month. While the discovery of the south pole was formerly considered of small moment, has now assumed paramount importance and the different nations of the world are vying with one another in their efforts to send exploring expeditions to the antarctic regions. The German government is considering plans for the equipment of a thoroughly scientific outfit to be sent south next year. Japan has been lured into the race; the first time in history that she has ventured into foreign research. A 150-ton schooner called the Kaiman Maru, under the command of Lieut. Shirasi, sailed last month for Yokohama for the conquest of the south pole. The Japanese government has no official connection with this expedition, but the fact that it is being made by that nation through private interest proves that Japan is fully alive to the importance of antarctic exploration.

The progress made by the United States toward the development of the one-in-a-million map is in advance of that of other countries. This map will be a great geographical achievement and will make the map-making system of the world uniform. Through the utilization of material already in possession of the United States geological survey it is expected that within two years maps from this system will be completed to cover the entire country.

The movement for a uniform international map was first introduced by Prof. Penck of Berlin at the international geographical conference held in Berne in 1891. After some discussion the matter was referred to a committee which represented ten countries and included the leading geographers of the world. At first the difficulties of adjusting national differences seemed insurmountable and for years little progress was made. At the eighth session of the geographical conference, in 1908, the matter was again brought forward. As a result, the United States geological survey prepared a number of maps on the scale of one to one million, which are designed to become a part of the one-millionth map of the United States. France, Germany and Great Britain had already prepared maps for several other countries, but no international scheme had been agreed upon.

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In the summer of 1909 a conference of delegates from various countries was held in London. At

Conference in London Agreed on a Plan.

this meeting all national differences were fairly discussed and a uniform plan agreed upon. Since then the work upon the millionth map has progressed so rapidly that within five years the maps from the entire world will be included upon a uniform scale and will show each part in its relative importance to the rest of the world. The advantage of this map to the geographical student, no less to the layman, will be readily apparent when it is considered that, according to maps now in existence, the British Isles sometimes fill as much space as the Chinese empire, and Cuba appears as large as the whole of France.

The expedition of the Duke of the Abruzzi in the Himalayas placed some new geographical information regarding these mountains in the hands of the Royal Geographical Society of Rome, while George Forest has given to the American society the results of a journey into the Salwin valley, in upper Burma, into territory almost unknown to white men. Several expeditions into Patagonia and the interior of South America have been made by private explorers from America, France and Germany, while different parts of Africa have been penetrated by numberless scientists, each of whom was eagerly collecting material of value to the geographical student of the future.

Tomorrow—FAMOUS SWINDLES.

Brookland School Accepted.

The new Brookland school for colored pupils was accepted this morning by the Commissioners, after an inspection. The building will be open for classes after the Christmas holidays. The school cost $23,000. It has three rooms and will accommodate ninety-six pupils. It was built by Burgess & Parsons.

Police Court Matron Weds.

Margaret B. Penn, matron at the Police Court for the last five years, was married last evening to Henry Heath, an employe of the Treasury Department, at the home of Mrs. Ruth Hughes of 459 Florida avenue. The ceremony was performed by Rev. Francis J. Grimke, pastor of the Fifteenth Street Presbyterian Church.

BENN PITMAN DEAD; NOTED AS INVENTOR

Besides His Stenographic Work He Devised Processes in Industry.

CINCINNATI, Ohio, December 29.—Benn Pitman, author, lecturer and inventor, died yesterday from an illness that had not been regarded as serious.

Mr. Pitman, who was born in England in 1822, was the author o. several works of phonography and introduced in America the system of shorthand writing that bears the name of his brother, Sir Isaac Pitman. He came to this country and settled in Cincinnati in 1853.

Benn Pitman, before coming to this country, lectured on shorthand for nine years throughout Great Britain. He had a large share in compiling the text books of his brother, Sir Isaac Pitman. In 1855 he discovered a process of producing electrotypes, and the following year, with Dr. J. B. Burns, succeeded in producing stereotype plates by the gelatin process in photo-engraving.

In 1865-1867 Mr. Pitman acted as official stenographer during the trials of the conspirators against President Lincoln, the "Sons of Liberty" and the Ku-Klux-Klan, and edited and compiled reports of these trials. In 1873 he beecame connected with the School of Design, now the Art Academy of the University of Cincinnati, his ooject being the development of American decorative art and opening up a new profession for women.

A display of wood carving and painting on china sent to the Philadelphia centennial celebration was the first attempt to give the public an idea what had been accomplished. Over 100 pieces were exhibited, all the work of women and girls.

Mr. Pitman was also an exponent of simplified spelling, and in August, 1906, when Col. Roosevelt, then President of the United States, indorsed the plan, Mr. Pitman was quoted as exclaiming:

"I am delighted. I knew it would come. It may take a century, as you cannot change a system—or a lack of system—in a day."

For years, he said, he had worked on an alphabet which would eliminate the letters c, q and x, which he considered superfluous, as well as other "reforms."

Among his writings are the "Reporter's Companion," "The Manual of Phonography," "Trials for Treason at Indianapolis," "The Assassination of President Lincoln" and the "Trial of the Conspirators," "The Phonographic Dictionary" (with Jerome B. Howard), "Life of Sir Isaac Pitman," "A Plea for American Decorative Art" and "A Plea for Alphabetical Reform."

Michael White, who writes these strange tales of life in India, tells, in our Sunday Magazine, how an American tutor to an Indian prince unearthed a fiendish plot, aided by a fascinating young queen in a palace of mysteries.

EXPLOSIONS NOT DUE TO FORM OF POWDER GRAIN

Secretary Meyer Says Sir Hiram Maxim's Statements Are Absolutely Baseless.

Secretary Meyer, in a letter to President Taft, characterizes as "unworthy of serious consideration" statements made by Sir Hiram Maxim, that gun explosions in the United States Army and Navy were due to the form of powder grain in use.

Brig. Gen. Crozier, chief of ordnance, U. S. A., wrote for Secretary Meyer a memorandum refuting the criticisms of Sir Hiram and others.

"It is considered," says Secretary Meyer, "unwarranted to carry out further experiments desired by Sir Hiram Maxim, and that his statements in relation to our smokeless powder are unworthy of serious consideration, except as to their misrepresentations, and to the evil effects of their wide publicity on those unacquainted with this subject."

Doesn't Understand Smokeless Type.

In regard to Sir Hiram Maxim's statement that he "had had great experience and knows what he is talking about," Secretary Meyer says Sir Hiram Maxim is "ignorant of the type of smokeless powder used by the United States government and it is quite probable that he has had very little or no experience with it, however, familiar he may be with nitro-glycerine or cordite powders."

The letter also declares that though Sir Hiram Maxim claims to be the inventor of modern smokeless powder, he is "in no sense the inventor of the type of smokeless powder developed by the United States Navy at the naval torpedo station, Newport, R. I., and used in the naval service since 1899."

Declared to Be Untrue.

"The broad statement of Sir Hiram Maxim," continues Secretary Meyer, "that the gun accidents of the United States Navy are due to multi-perforated powder grain is shown to be untrue from evidence not at all connected with the details of the grain. When the composition of the powder and the details of the grain are considered there is additional evidence to show that these elements are not at fault."

A tabulated statement of gun accidents in the United States navy since smokeless powder was introduced also is contained in Secretary Meyer's letter with details of the caliber and number of the guns, previous rounds fired, damage to guns and cause of explosions. Not in one case, declares Secretary Meyer, has the evidence of the occurrence shown that the smokeless powder in use at the time of the explosion was at fault in any degree.

Gen. Crozier's Memorandum.

Brig. Gen. William Crozier's memorandum to the Secretary of War supports the contentions of Secretary Meyer with regard to military experiments with smokeless powder. It is indicated that since the introduction of smokeless powder in the military service but one large gun has burst and only two or three field guns, accidents ascribed to other causes. A number of illustrations of the successful firing of hundreds of thousands of rounds containing multi-perforated grains at the Sandy Hook proving ground and the seacoast fortifications generally of the United States and the Philippines are cited by Gen. Crozier.